

Photo by [Larry Myhre](#)

Energy News Overview

On Tuesday (4/29) Governor Inslee signed an executive order launching a program to curb greenhouse gas emissions in Washington, with such goals as getting utilities to stop using coal-generated electricity and “deploying” renewable energy sources with a stress on solar power. For details see the first link at top of page 5.

The Pacific Northwest has seen several recent announcements for proposed energy export facilities. The recent proposals include a propane/butane (LPG) export facility in Longview by Haven/Sage Midstream, and the purchase of an underutilized existing LPG facility in Ferndale by Petrogas. Growing natural gas and oil production has resulted in increased North American production of propane and butane (and ethane) and the US has now become a significant exporter of these fuels, which are very popular in east Asia and South America. Even more intriguing are the proposals for three methanol plants that would convert pipeline natural gas into methanol primarily for export to China. Methanol can be used in a variety of petrochemical activities including the production of polyethylene and polypropylene. Much of the world's petrochemical industry is still run off of hydrocarbons derived from much more expensive petroleum sourced naphtha. The three proposed projects would be located in Port Westward Oregon; Port of Tacoma and the Port of Longview Washington. All three proposals are virtually identical and have been announced by the same company: NW Innovation Works, a multi-party consortium that includes Chinese partners, BP, and a Silicon Valley private equity firm. The capital investments are \$1 billion for each facility, with a possible second phase expansion of \$0.8 billion. These recent announcements are in addition to the two large coal export terminals, Millennium Bulk at Longview and Gateway Pacific at Cherry Point, and the large Tesoro-Savage oil-by-rail/coastal barge handling facility in Vancouver, all of which were proposed several years ago. Over the last couple of years other oil-by-rail/coastal barge handling facilities have been proposed in Portland, Port Westward, Grays Harbor (3), and a second facility in Vancouver. Several state refineries are expanding their oil-by-rail handling facilities as well. The Seattle Times article on page 5 provides a summary and useful graphics. See other related articles on page 6.

Nationally, the Supreme Court handed the Obama administration a solid (6-2) victory upholding the EPA's authority to regulate carbon dioxide emissions from coal and natural gas fueled power plants. Legal experts said the decision, written by Justice Ruth Bader Ginsburg, signals that the Obama administration's efforts to use the Clean Air Act to fight global warming could withstand legal challenges. In June, the E.P.A. is expected to propose a sweeping new Clean Air Act regulation to cut emissions of carbon dioxide from power plants: see NYT article on page 5. The Obama administration also announced a delay in making its decision regarding the Keystone XL pipeline, which would primarily move heavy crude oil from oil sands production sites in Canada. The reason given for the delay was to let a legal challenge by landowners in Nebraska be presented to that state's Supreme court for review; the delay allows the administration to wait until after the 2014 elections before making the decision public. As the crucial 2014 election draws closer we are beginning to see energy politics enter the fray. The Koch brothers and some of their fossil fuel allies are running state level campaigns against renewable portfolio standards and state's support for solar energy: See article on page 5. Agriculture interests are running ads supporting the federal renewable fuel standard, and Tom Steyer, a retired billionaire investor, is planning to spend as much as \$100 million during 2014 to pressure federal and state officials to support or enact climate change measures. Let the voice-over commercial season begin.

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What's Happening in the Energy Office

Energy Independence Act (I-937) Rulemaking

On January 24, 2014, the Washington Department of Commerce adopted amendments and new sections to WAC 194-37, Energy Independence Act. The rules took effect on February 24, 2014. This action concluded the first phase of Commerce's review of the EIA rules. During this phase stakeholders identified other potential changes to Chapter 194-37 WAC. Commerce is now seeking input on topics or specific rule amendments that stakeholders wish to address in Phase 2 of the rulemaking.

The Phase 2 rulemaking inquiry is part of a proceeding initiated on August 21, 2013, when Commerce filed with the Code Reviser a Preproposal Statement of Inquiry (CR-101) to initiate a rulemaking to consider amending and adopting rules in WAC 194-37, Energy Independence Act. This notice was published as Washington State Register 13-17-117.

WRITTEN COMMENTS

Commerce requests interested persons submit comments on Phase 2 topics and proposed rule amendments **Wednesday, April 30, 2014**. Comments should be provided in electronic format to enhance public access, for ease of providing comments, to reduce the need for paper copies, and to facilitate quotations from the comments. Comments may be submitted via electronic mail to EIA@commerce.wa.gov. Commerce will post all comments on its EIA rulemaking page accessible at: commerce.wa.gov/EIA.

WORKSHOP

Commerce will conduct a stakeholder workshop on **Wednesday, May 14, 2014, 1:30 pm.** at Olympia, Washington. The workshop will take place in the House Rules Room at the west end of the 1st floor of the Legislative Building (Capitol). A building map is available here: http://www.leg.wa.gov/LIC/Documents/Maps/LEG_BLDG_MAP.pdf

Please direct any questions regarding this rulemaking inquiry to Glenn Blackmon at EIA@commerce.wa.gov or by telephone at 360 725-3115.

Pacific NW Solar Partnership Grants Seed Funding to Local Projects

Contracts were recently executed with the cities of Mercer Island, Edmonds, and the Pacific Northwest Pollution Prevention Resource Center (on behalf of the City of Bellevue). Small grants will provide seed funding for Solarize campaigns to promote residential installations through bulk purchasing cost savings and neighborhood outreach. Each community will also receive training by NW Seed on how to conduct a successful Solarize campaign. Bellevue and Mercer Island are planning a friendly competition – to see which city gets the most installations through their campaigns!

A similar competitive grant process for seed funding is currently underway in the State of Oregon. The focus is on local projects which will increase grid-tied solar electric systems within the applicant's community, and may include residential, small commercial, agricultural or community scale systems. Commerce anticipates having three Oregon communities or non-profits under contract by the end of May.

Electricity, Petroleum & Natural Gas Prices

Energy Price Overview

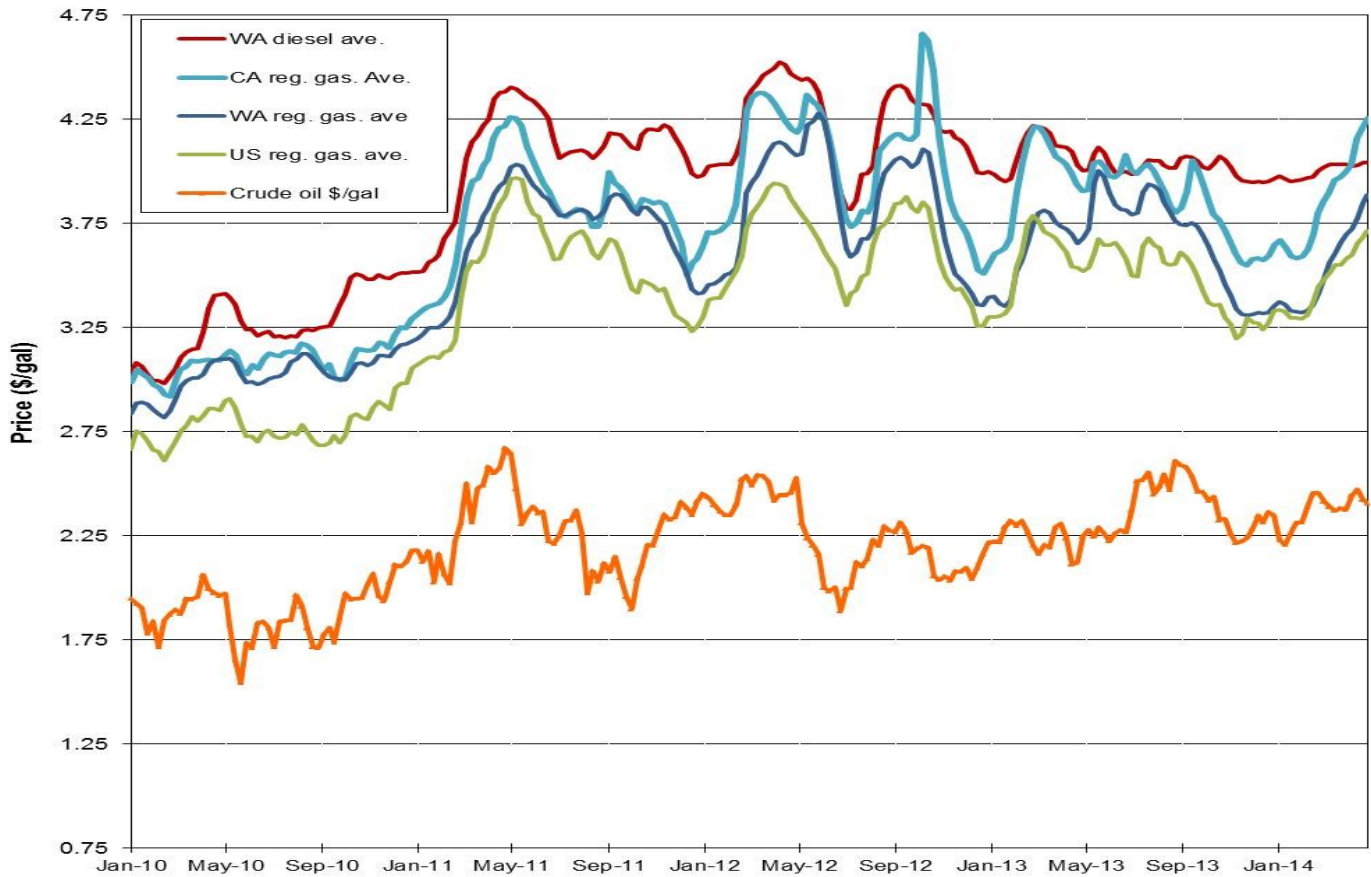
Over the past month the spot price for West Texas Intermediate increased about one dollar trading at just over \$100 per barrel, approximately the same average price seen during February and March. The benchmark WTI remained stable despite escalating political tensions between Russia and the European Union and the United States, over the political future of Ukraine. Due to high crude oil inventories and adequate spare production capacity energy markets don't seem to be worried about the ongoing political turmoil that involves Russia, the world's third largest producer of crude oil.

While crude oil prices barely edged up, retail and wholesale price for gasoline continued the increase begun in late February. Gasoline prices typically increase during the spring as demand increases and refiners schedule their seasonal maintenance and begin to switch to less volatile summer blends by removing butane. Refinery maintenance occurs during Jan. through April, which results in reduced production and gasoline and diesel inventories. This year there was another factor as ethanol, which is blended at 10 percent by volume with gasoline, itself jumped significantly in price. During the last full week in April U.S. gasoline and diesel prices averaged \$3.71 and \$3.98 per gallon respectively. For the same period Washington state gasoline and diesel prices averaged \$3.88 and \$4.04 per gallon an 18 cent and 1 cent increase from the last week in March.

The price for month ahead NYMEX natural gas increased slightly to \$4.60 per MMBtu: an 11 cent increase from the previous month. Locally, natural gas spot average price at Kingsgate was \$4.52 per MMBtu, down 30 cents from the price reported for last month. Natural gas storage increased by 49 billion cubic feet to 899 Bcf for the week ending April 18. Total storage is only 3 Bcf above the figure reported for the same week in March, reflecting the severe and protracted winter in much of the U.S. The national gas storage level is 53 percent below its 5-year average, and in the West we are 42 percent below average. The gas storage refill season typically begins in April, but began a couple of weeks later this year. The current deep natural gas storage deficit, combined with nearly stagnant US production and coal plant retirements, will likely support higher natural gas prices for the rest of 2014.

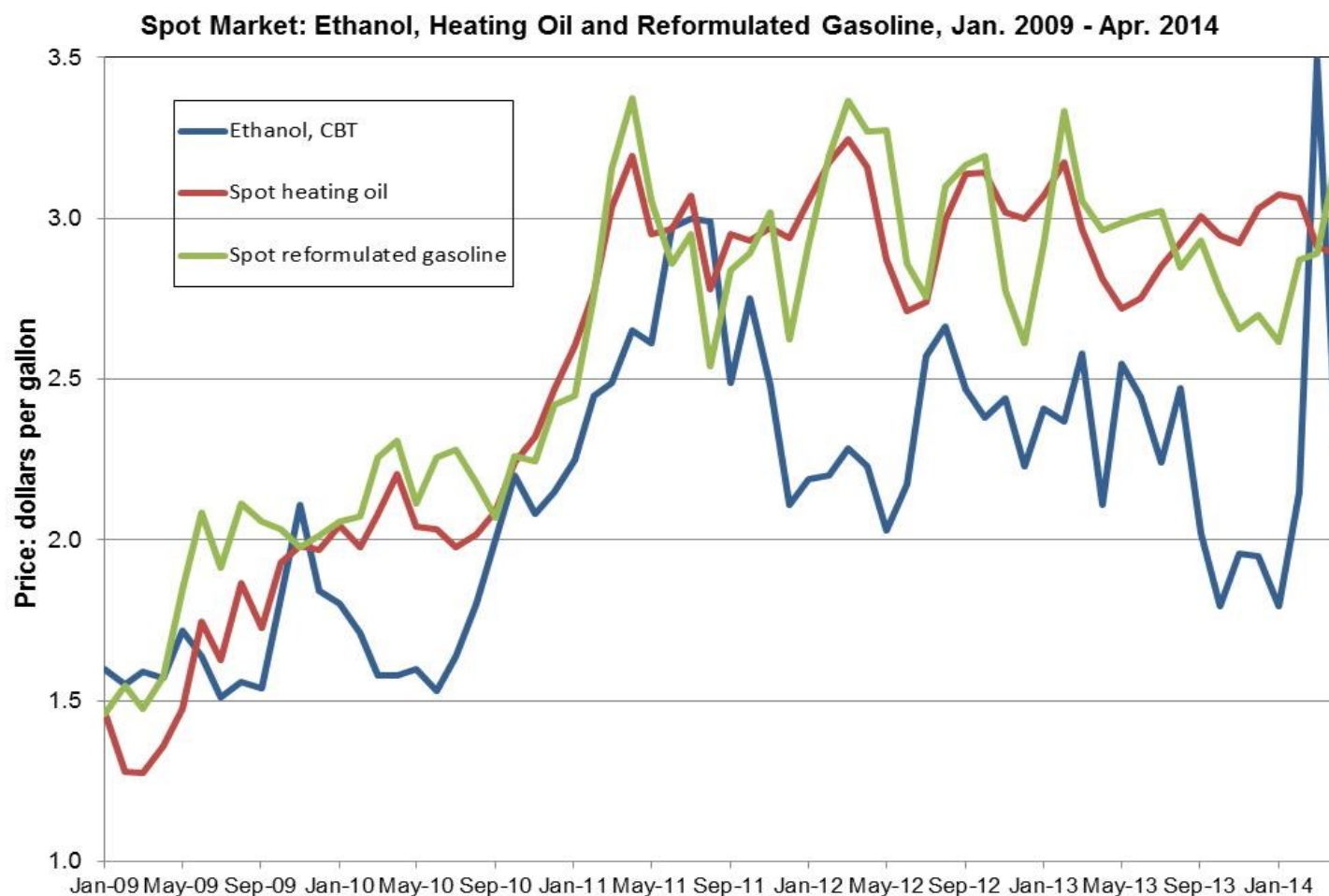
Energy Price Summary	Current	Month Ago	Year Ago
Monthly Range at Mid-C (Peak: \$ per MWh)	16.5-43	NA	23-43
Average Mid C price (Peak hours \$ MWh)	31.4	NA	30.4
Electricity WA Retail: Feb. (cents/kWh)	7.40	7.33	7.20
Natural gas Kingsgate spot price (next day: \$ per million BTU)	4.52	4.82	3.93
Natural gas Sumas futures price (next month \$ per million BTU)	4.54	4.38	3.91
Natural gas futures (NYMEX next month: \$ per million BTU)	4.60	4.49	4.12
E85 (national average: \$ per gallon gasoline)	4.17	3.73	4.22
Ethanol (CBT next month contract: \$ per gallon)	2.30	3.50	2.11
Corn (CBT next month contract: \$ per bushel)	5.09	5.02	6.20
Petroleum, West Texas Intermediate futures (\$ per barrel)	101.1	100.1	94.3
Seattle gasoline price (\$ per gallon)	3.71	3.45	3.83
Gasoline futures (NYMEX next month: \$ per gallon)	3.01	2.87	2.87
State diesel price (\$ per gallon)	4.03	4.00	4.12
Heating oil futures (NYMEX next month: \$ per gallon)	2.96	2.86	2.79
U.S. residential propane price report (reported Oct.-Mar.)	NA	3.05	NA
Clean Cities: Alternative Fuel Price Report, Jan. 2013	US Avg current	West Coast current qtr	West Coast last qtr avg
Ethanol E85 (\$ per gas gallon equiv.)	4.29	4.55	4.61
Biodiesel B20 (\$ per diesel gallon equiv.)	4.05	4.15	4.35
Biodiesel B99-100 (\$ per diesel gallon equiv.)	4.71	4.99	4.84
Compressed Natural Gas (\$ per gas gallon equiv.)	2.09	2.33	2.31
Propane (\$ per gas gallon equiv.)	4.31	4.50	4.22

Retail Gasoline and Diesel Prices: Jan. 2010 - Apr. 2014



Spot Crude Oil (WTI), Natural Gas (Kingsgate hub): Jan. 2009 - Apr. 2014





Energy Headlines - If you only have time to read a few articles—read these.

News Release: Washington State Governor Announces Executive Action to Reduce Carbon Pollution & Promote Clean Energy. Washington State Governor's Office.

<http://www.governor.wa.gov/news/releases/article.aspx?id=247>

In victory for Obama, court backs rules for coal pollution. New York Times, Apr. 29.

<http://www.nytimes.com/2014/04/30/us/politics/supreme-court-backs-epa-coal-pollution-rules.html?rref=business/>

A battle is looming over renewable energy, and fossil fuel interests are losing. Washington Post. Apr. 25.

http://www.washingtonpost.com/business/economy/a-battle-is-looming-over-renewable-energy-and-fossil-fuel-interests-are-losing/2014/04/25/24ed78e2-cb23-11e3-a75e-463587891b57_story.html

Biggest energy source for the future isn't oil or gas, Exxon says. Dallas Business Journal, April 23.

http://www.bizjournals.com/dallas/news/2014/04/23/biggest-energy-source-for-the-future-isnt-oil-and.html?iana=ind_energy

Surging oil traffic puts region at risk. Seattle Times, Apr. 19.

http://seattletimes.com/html/localnews/2023416119_oilspill Exxon anniversary.xml.html

Obama's last shot. Rolling Stone, April 23.

<http://www.rollingstone.com/politics/news/obamas-last-shot-20140423>

The Koch brothers attack on solar. New York Times, Apr. 27.

<http://www.nytimes.com/2014/04/27/opinion/sunday/the-koch-attack-on-solar-energy.html>

Energy Headlines—continued

Climate change

CO2 makes growing season longer. Nature, April 23.

<http://www.nature.com/news/co2-makes-growing-seasons-longer-1.15081>

United States has warmed since first Earth Day. Climate Central, April 22.

<http://www.climatecentral.org/news/since-first-earth-day-u.s.-temps-marching-upward-17330>

Rich nations' greenhouse gas emissions fall in 2012, led by US. Reuters, Apr. 25.

http://www.newfuelist.com/link/~aga2#.U1_mdn_n-os

Cost of Fighting Warming 'Modest,' Says United Nations Panel. Associated Press.

http://seattletimes.com/html/nationworld/2023365336_apxunclimatereport.html

Methane emissions

EPA drastically underestimates methane released at drilling sites. LA Times, April 14.

<http://www.latimes.com/science/sciencenow/la-sci-sn-methane-emissions-natural-gas-fracking-20140414,0,2417418.story>

A deeper look at a study finding high leak rates from gas drilling. DotEarth New York Times, April 23.

<http://dotearth.blogs.nytimes.com/2014/04/23/a-deeper-look-at-a-study-finding-high-leak-rates-from-gas-drilling/>

Study Says Wetlands Likely to Blame for Greenhouse Gas Increases (Science Codex)

http://www.sciencecodex.com/wetlands_likely_to_blame_for_greenhouse_gas_increases_study-132525

The right way to develop shale gas. New York Times, April 30.

<http://www.nytimes.com/2014/04/30/opinion/the-right-way-to-develop-shale-gas.html?src=rechp>

Utilities

Big Texas utility files for bankruptcy. Dealbook, New York Times, April 29.

http://dealbook.nytimes.com/2014/04/29/big-texas-utility-files-for-bankruptcy/?_php=true&_type=blogs&hp&_r=0

Under Revised Quake Estimates, Dozens of Nuclear Reactors Face Costly Safety Analyses. New York Times.

http://www.nytimes.com/2014/04/06/nyregion/dozens-of-nuclear-reactors-must-prove-safety-under-revised-quake-estimates.html?_r=0

Conventional energy

New \$275 Million Liquefied Petroleum Gas Export Facility Planned for Longview. Sustainable Business Oregon.

<http://www.sustainablebusinessoregon.com/articles/2014/04/new-275m-lp-export-facility-planned.html>

Multinational group proposes \$1.8 billion methanol plant in Tacoma. Tacoma News Tribune, Apr. 23.

<http://www.thenewstribune.com/2014/04/23/3163248/multinational-group-proposes-18.html>

Port of Kalama approves lease agreement with NW Innovations.

<http://www.prweb.com/releases/2014/04/prweb11751966.htm>

Clean Energy

Oregon Wave Energy Project Sinks. Oregon Public Broadcasting.

<http://earthfix.opb.org/energy/article/oregon-wave-energy-project-sinks/>

Study Shows Pacific Northwest Still Near Top in Wind Energy, Though Development Has Hit Doldrums. The Oregonian.

http://www.oregonlive.com/business/index.ssf/2014/04/study_shows_northwest_still_ne.html

Nuclear Industry Gains Carbon-Focused Allies in Push to Save Reactors. New York Times, Apr. 28.

<http://www.nytimes.com/2014/04/28/business/energy-environment/nuclear-industry-gains-carbon-focused-allies-in-push-to-save-reactors.html?partner=rss&emc=rss>

U-S Department of Energy Begins Push to Double Hydropower Capacity. Washington Examiner

<http://washingtonexaminer.com/energy-department-begins-push-to-double-hydropower-capacity/article/2547834>

Recent Reports on Energy and Climate Change

Tesoro Savage Petroleum Terminal submission to the Energy Facility Siting Evaluation Council

<http://www.efsec.wa.gov/Tesoro-Savage.shtml>

<http://www.iea.org/publications/freepublications/publication/name,43771,en.html>

Fifth Assessment Report. Intergovernmental Panel on Climate Change (IPCC) 2013-14.

<http://www.ipcc.ch/>

First academic study released in EDF's groundbreaking methane emissions series. Environmental Defense Fund, Sept 2013.

<http://www.edf.org/media/first-academic-study-released-edf%E2%80%99s-groundbreaking-methane-emissions-series>

World Bank: 4 Degrees - Turn Down the Heat. Potsdam Institute for Climate Impact Research and Climate Analytics. June 2013. http://www-wds.worldbank.org/external/default/WDSPContentServer/WDSP/IB/2013/06/14/000445729_20130614145941/Rendered/PDF/784240WP0Full00D0CONF0to0June19090L.pdf

http://www-wds.worldbank.org/external/default/WDSPContentServer/WDSP/IB/2013/06/14/000445729_20130614145941/Rendered/PDF/784240WP0Full00D0CONF0to0June19090L.pdf

Long-term outlook for nuclear power depends on lifetime of plant, EIA, Apr. 2013

<http://www.eia.gov/todayinenergy/detail.cfm?id=10991>

Environmental Protection Agency 2012 Climate Change Indicators Report.

<http://www.epa.gov/climatechange/science/indicators/>

Report on the First Quadrennial Technology Review, US Dept. of Energy

<http://energy.gov/downloads/report-first-quadrennial-technology-review>

Understanding Household Preferences for Alternative- Fuel Vehicle Technologies. Mineta Transportation Institute. <http://www.transweb.sjsu.edu/project/2809.html>

www.transweb.sjsu.edu/project/2809.html

Redrawing the Energy-Climate Map. International Energy Agency, June 2013.

http://www.iea.org/media/freepublications/executivesummary/WE02013_Climate_Excerpt_ES_WEB.pdf

Natural Gas Weekly Update: <http://www.eia.gov/naturalgas/weekly/?src=Natural-b1>

Monthly Energy Review, EIA : <http://www.eia.gov/totalenergy/data/monthly/>

Short-term Energy Outlook, EIA : <http://www.eia.gov/forecasts/steo/>

This Week in Petroleum. EIA,: <http://www.eia.gov/oog/info/twip/twip.asp>

River & Snow Pack Info

- Observed Apr. stream flow at The Dalles: 115% of average.
- Observed Apr. precipitation above The Dalles: 49% of average.
- Forecast runoff at The Dalles, April: 105 million acre-feet, 103% of 30-year average
- Forecast snowpack volume: 110% of average.
- Federal hydropower generation in Feb. : 11,546 aMW, 2009-2013 average: 9,280 aMW.
- Reservoir content (Libby, Hungry Horse, Grand Coulee, Dworshak): Feb. 59%, 5-year average: 58%.

Power Exchanged

Average flow of power during the last 30 days

- | | |
|----------------------------|---------|
| • California (exported to) | 5191 MW |
| • Canada (export to) | 875 MW |
| • Net power exported: | 6066 MW |

Forest Products Financial Assistance Program

The Forest Products Financial Assistance Program has given wood energy awards to:

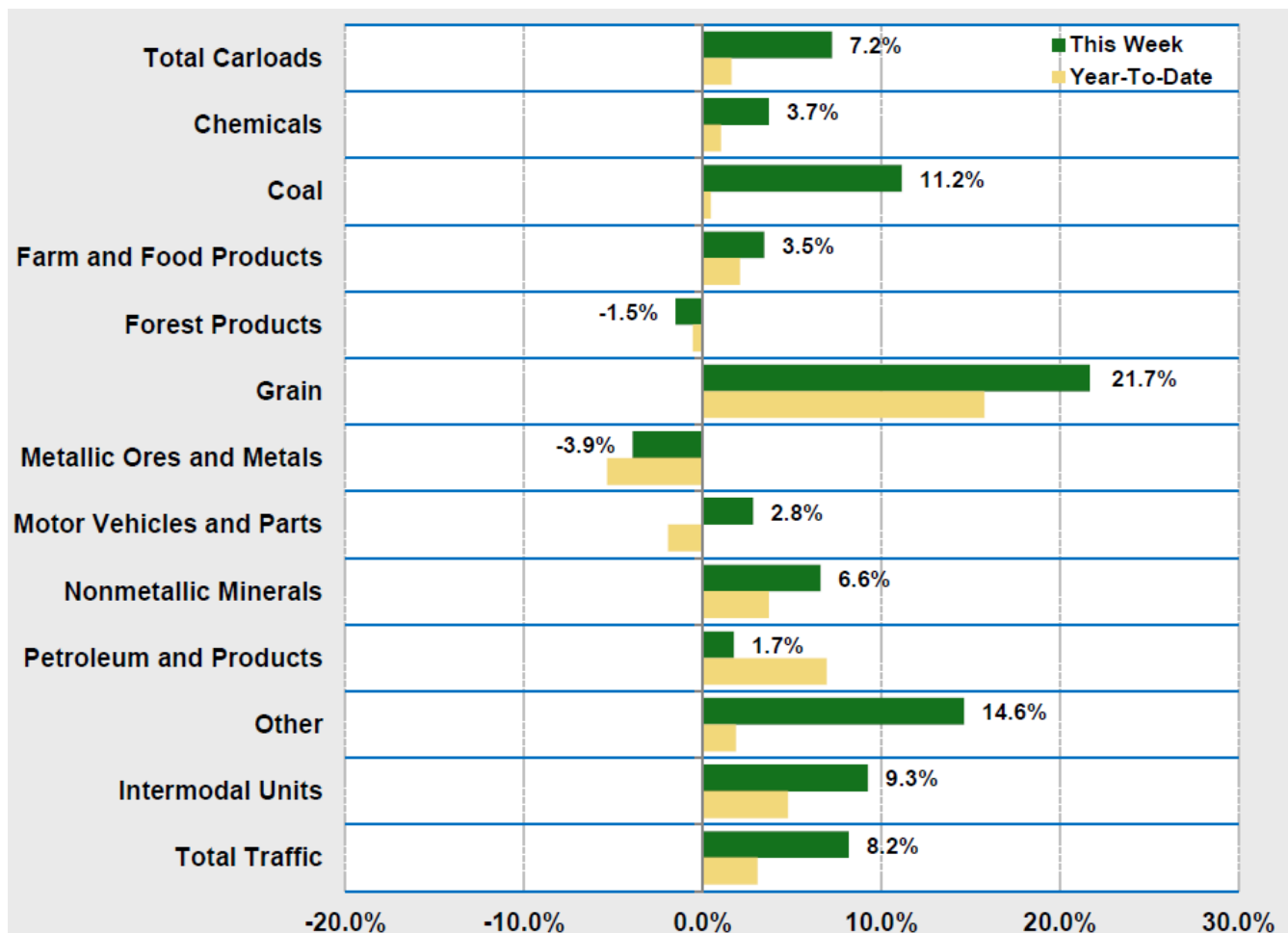
- Inland Empire Paper (Spokane): \$170,000 for pilot testing of algae membranes to reduce excess nutrients from wastewater.
- Central Washington Clean Energy Consortium (Ellensburg): \$50,000 for CHP feasibility study for CWU campus.
- Port of Port Townsend (Port Townsend): \$50,000 for biochar from Port Townsend Paper to capture metals in storm-water from the boatyard.

Contact for information is Peter Moulton at (360) 725-3116.

Carload Activity of Major U.S. Railroads by Type

(Sources: Association of American Railroads—Weekly Rail Traffic summary and California Energy Commission.

Year-to-date rail traffic for major U.S. railroads was 3.8% higher than last same time last year. In the most recent 4 week average, traffic was up 6.06% compared to same period in 2013. Carload activity in the U.S. is shown below. Carload crude oil transportation (rail cars carry an average of 714 barrels of crude oil each) is up. In 2013 shipments increased 83% (434,042 carloads). In 2012 there were 236,556 carloads delivered.



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Innovation is in our nature.

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